

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-25. Canceled

26. (Currently Amended) A document management system, comprising:

a document storage device configured to store a plurality of XML electronic documents; and

a document ~~transmission~~ receiving device coupled to the document storage device, wherein the document transmission device is configured to process one of multiple versions of an XML electronic document ~~stored in the document storage device according to a version value of the versions of the XML electronic document, wherein date information and/or time information of when contents of the XML electronic document are changed are used as the version value,~~ wherein the contents of at least one XML electronic document comprise a plurality of individual fragments.

27. Canceled

28. (Currently Amended) The document management system of claim ~~27~~26, wherein a lower fragment version value is updated when a lower fragment content of the XML electronic document is changed, and wherein a latest lower fragment version value is used as a corresponding upper fragment version value.

29. (Currently Amended) The document management system of claim ~~28~~26, wherein each fragment version value includes date and time information according to when said contents of the corresponding fragment was ~~changed~~updated.

30. (Currently Amended) The document management system of claim 26, wherein the document ~~transmission-receiving~~ device is configured to request, ~~select, sort~~ or provide the XML documents.

31. (New) The document management system of claim 29, wherein said each fragment version value includes date and time information when contents of the corresponding fragment was changed.

32. (New) The document management system of claim 28, wherein a type of the updated lower content is included in the upper fragment version value.

33. (New) The document management system of claim 26, wherein version information of said contents is defined by a syntax defining a structure of said electronic document.

34. (New) The document management system of claim 33, wherein said syntax is XML schema.

35. (New) The document management system of claim 34, wherein said contents includes at least one number selected from the group of title, synopsis, review, and casting of a broadcasting television program.

36. (New) A method for updating a fragment stored in a client describing metadata related on a broadcasting program, wherein said fragment is based on XML, the method comprising:

requesting an updated version of said fragment;

receiving said updated version of said fragment identified by a fragment identification including a fragment version, wherein said fragment version is date information and/or time information; and

updating said fragment stored in said client with said received updated version of said fragment.

37. (New) The method of claim 36, wherein each fragment version includes date and time information according to when contents of the fragment were updated.

38. (New) The method of claim 37, wherein said each fragment version includes date and time information according to when said contents of the fragment were changed.

39. (New) The method of claim 36, wherein said requesting comprises transmitting a current version of said fragment, and wherein said fragment version of said received updated version is later than said fragment version of said current version.

40. (New) The method of claim 36, wherein when a lower structure of said fragment is changed, a version value of the lower structure is updated and the updated version value is reflected in a version value of an upper structure.

41. (New) The method of claim 40, wherein a largest value of the version values of the lower structures is used as the version value of the upper structure.

42. (New) The method of claim 41, wherein a type of the updated lower structure is included in the version value of the upper structure.

43. (New) The method of claim 37, wherein said fragment version of said contents is defined by a syntax defining a structure of said fragment.

44. (New) The method of claim 43, wherein said syntax is XML schema.

45. (New) The method of claim 44, wherein said contents includes at least one member selected from the group of title, synopsis, review, and casting of a television broadcasting program.

46. (New) A method for updating a fragment stored in a client describing metadata related on a television broadcasting program, wherein said fragment is based on XML, the method comprising:

requesting an updated version of said fragment to a provider; and

updating said fragment stored in said client with a version later than a version of said fragment stored in said client identified by a fragment identification

including a fragment version from said provider, wherein said fragment version is date information and/or time information.

47. (New) A method for processing a response including an updated version of a fragment stored in a client in response to a request for updating said fragment stored in said client describing metadata related on a broadcasting program, wherein said fragment is based on XML, the method comprising:

updating said fragment stored in said client with said updated version of said fragment identified by an fragment identification including a fragment version, wherein said fragment version is date information and/or time information.

48. (New) The method of claim 47, comprising receiving said updated version of said fragment identified by said fragment information and said fragment version from a provider.

49. (New) The method of claim 47, wherein each fragment version includes date and time information according to when said metadata of the fragment were updated.

50. (New) The method of claim 49, wherein said each fragment version includes date and time information according to when said metadata of the fragment were changed.

51. (New) The method of claim 47, wherein said request comprises a selected version of said fragment, and wherein said received updated version of said fragment is later than said selected version.

52. (New) The method of claim 47, wherein when a lower structure of said fragment is changed, a version value of the lower structure is updated and the updated version value is reflected in a version value of a corresponding upper structure.

53. (New) The method of claim 52, wherein a largest value of the version values of the lower structures is used as the version value of the corresponding upper structure.

54. (New) The method of claim 53, wherein a type of the updated lower structure is included in the version value of the corresponding upper structure.

55. (New) The method of claim 47, wherein said fragment version is defined by a syntax defining a structure of said fragment, and wherein said syntax is XML schema.

56. (New) The method of claim 47, wherein said metadata includes at least one member selected from the group of title, synopsis, review, and casting of a television broadcasting program.

57. (New) A document management system, comprising:
a document provider device configured to update a fragment describing metadata related on a broadcasting program, wherein said fragment is based on XML, wherein the document provider device is configured to process a request for an updated version of said fragment according to a fragment identification including a fragment version value of said fragment, wherein the document provider device is configured to supply said updated version of said fragment, wherein date information and/or time information of corresponding metadata of said fragment are used as the fragment version value.

58. (New) A method for providing a fragment describing metadata related on a broadcasting program, wherein said fragment is based on XML, the method comprising:
receiving a request for an updated version of said fragment from said client;
determining a provider has a capability of handling said version requests; and

supplying said updated version of said fragment in accordance with a determined result, wherein said fragment version is date information and/or time information.

59. (New) The method of claim 58, wherein said request for said updated version of said fragment identifies said fragment using fragment identification and a current fragment version.

60. (New) The method of claim 58, comprising identifying a version of said fragment later than a requested version of said fragment in said provider as said updated version of said fragment.

61. (New) The method of claim 58, wherein each fragment version includes date and time information according to when said metadata of the fragment were updated.

62. (New) The method of claim 61, wherein said each fragment version includes date and time information according to when said metadata of the fragment were changed.

63. (New) The method of claim 58, wherein when a lower structure of said fragment is changed, a version value of the lower structure is updated and the updated version value is reflected in a version value of a corresponding upper structure.

64. (New) The method of claim 63, wherein a largest value of the version values of the lower structures is used as the version value of the corresponding upper structure.

65. (New) The method of claim 64, wherein a type of the updated lower structure is included in the version value of the corresponding upper structure.

66. (New) The method of claim 58, wherein said fragment version is defined by a syntax defining a structure of said fragment.

67. (New) The method of claim 66, wherein said syntax is XML schema.

68. (New) The method of claim 67, wherein said metadata includes at least one member selected from the group of title, synopsis, review, and casting of a television broadcasting program.

69. (New) A method for replying to a request for updating a fragment stored in a client describing metadata related on a broadcasting program, wherein said fragment is based on XML, the method comprising:

supplying said client with an updated version of said fragment identified by a fragment identification including an fragment version, wherein said fragment version is date information and/or time information.

70. (New) A method for managing a fragment stored in a client describing metadata related on a television broadcasting program, wherein said fragment is based on XML, the method comprising:

using a version information of said fragment, wherein said version information is date information and/or time information.

71. (New) The method of claim 70, comprising transmitting updated versions of said fragment identified by said fragment information including at least said fragment version information.

72. (New) The method of claim 71, wherein each fragment version information includes date and time information according to when said metadata of said fragment were updated.

73. (New) The method of claim 72, wherein said each fragment version information includes date and time information according to when said metadata of the fragment were changed.

74. (New) The method of claim 71, comprising receiving a request for an updated version of said fragment.

75. (New) The method of claim 70, wherein when a lower structure of said fragment is changed, a version value of the lower structure is updated and the updated version value is reflected in a version value of a corresponding upper structure.

76. (New) The method of claim 75, wherein a largest value of the version values of the lower structures is used as the version value of the corresponding upper structure.

77. (New) The method of claim 76, wherein a type of the updated lower structure is included in the version value of the corresponding upper structure.

78. (New) The method of claim 70, wherein said fragment version information is defined by a syntax defining a structure of said fragment.

79. (New) The method of claim 78, wherein said syntax is XML schema.

80. (New) The method of claim 79, wherein said metadata includes at least one member selected from the group of title, synopsis, review, and casting of a television broadcasting program.